

## **BARRIER METAL LAYER FOR A CARBON NANOTUBE FLAT PANEL DISPLAY**

### **ABSTRACT OF THE DISCLOSURE**

An electron-emitting device, for example as used in a field emissive display device, includes a barrier layer between an emitter electrode structure and a catalyst layer, upon which microstructures of carbon nanotubes are formed. The barrier layer may act as an anti diffusion layer between the catalyst layer and, for example, a resistive layer of the emitter electrode structure. In this way, the catalyst layer may be prevented from diffusing into the resistive layer during the growing of the carbon nanotubes or other electron-emissive elements. The barrier layer may also enhance the adhesion characteristics of the catalyst layer to improve the uniformity of growth of the electron-emissive elements with the catalyst layer.